



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ITS 18.0012X

Issue No: 0

Certificate history:

[Issue No. 0 \(2018-05-21\)](#)

Status: **Current**

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Date of Issue: **2018-05-21**

Applicant: **PSM Instrumentation Limited**
Unit 3 Burrell Road
Haywards Heath
West Sussex
RH16 1TW
United Kingdom

Equipment: **APT 500 series Pressure Transmitter**

Optional accessory:

Type of Protection: **Intrinsic Safety "ia"**

Marking:

Ex ia IIC T4 Ga

-30°C ≤ Ta ≤ +85°C

IECEX ITS 18.0012X

*Approved for issue on behalf of the IECEx
Certification Body:*

V K Varma

Position:

Certification Officer

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](#).

Certificate issued by:

Intertek Testing & Certification Limited
ITS House, Cleeve Road,
Leatherhead,
Surrey, KT22 7SA
United Kingdom



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Manufacturer: **PSM Instrumentation Limited**
Unit 3 Burrell Road
Haywards Heath
West Sussex
RH16 1TW
United Kingdom

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/ITS/ExTR18.0013/00](#)

Quality Assessment Report:

[GB/ITS/QAR15.0016/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The APT 500 Series level transmitters are designed for monitoring liquid levels and pressures, based on a micro-electro-mechanical (MEMS) piezo-resistive cell.

The pressure measurement cell is isolated from the process by a diaphragm with an internal fluid fill transmitting the process pressure to it. Temperature compensation and zero correction are applied during manufacture by laser trimming of compensation resistors.

The output from the measurement cell is converted by an internal circuit to a 4-20mA signal which is scaled to the user requirements.

The sensor is fully encapsulated internally and may be manufactured from a choice of construction materials for the wetted parts.

The model code is defined as follows:

APT 500 – Non-Intrinsically Safe models
APT 500/I – Intrinsically Safe, ATEX certification
APT 500/X – Intrinsically Safe, IECEx certification

The model code may be followed by other alpha-numeric characters, to define other features of the product.

Entity Parameters:

$U_i = 28V$
 $I_i = 93 \text{ mA}$
 $P_i = 0.7W$
 $C_i = 12nF$
 $L_i = 0$

SPECIFIC CONDITIONS OF USE: YES as shown below:

Non-metallic parts on the exterior of the pressure transmitter may present an electrostatic charging hazard. Refer to warning marking and the manufacturer's instructions for further guidance.

Where external parts of the pressure transmitter incorporate light metal components (i.e. in excess of 10 % in total of aluminium, magnesium, titanium and zirconium), the sensor must be protected from impact such that impact / friction sparks cannot occur, taking into account rare malfunction.

Annex:

[Annex for IECEx Certificate of Conformity IECEx ITS 18.0012X Issue 0.pdf](#)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ITS 18.0012X	Issue No. 0
Annex No. 1		

Technical Documents			
Document Title	Document No.	Issue	Date
APT Parts/Exploded View	P19001-APT-GA	A	31/06/2017
APT Sensor Specification	P19011-APT-GA	A	31/06/2017
APT Board Screen Printing (5 pages)	P19012-APT-GA	B	18/04/18
APT Outline	P19000-APT-GA	A	31/06/2017
APT Local and Remote Termination Options	P19024-APT-GA	A	11/04/2018
APT 500 Series configurable 4-20mA Transmitter	P19004-APT-BOM	L	18/04/2018
APT 500 Series Top Level BOM	P19002-APT-BOM	B	09/05/2018
APT Main Board	P19003-APT-CD	C	18/04/1208
APT 500 Series MAN 085	MAN 085	C	03/05/2018
ATEX & IECEx Labels	P19013-APT-DT	C	02/05/2018
APT Board Clearance	P19020-APT-GA	A	01/03/2018
APT transmitter typical connection head	P19018-APT-GA	A	01/05/2018
APT transmitter typical connection head	P19019-APT-GA	A	01/05/2018

Certificate issued by:

intertek

Total Quality. Assured.

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